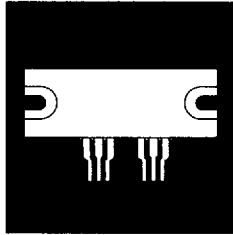


DUAL 60V, LOW $R_{DS(on)}$ POWER MOSFET IN LOW PROFILE PLASTIC PACKAGE



Dual Uncommitted Power MOSFET
N-Channel, 60V, .018 Ω $R_{DS(on)}$

FEATURES

- Two Uncommitted MOSFETs In One Package
- Isolated Low Profile Package
- Low $R_{DS(on)}$
- Low Conductive Loss/Low Gate Charge
- High Current/Fast Switching Times

DESCRIPTION

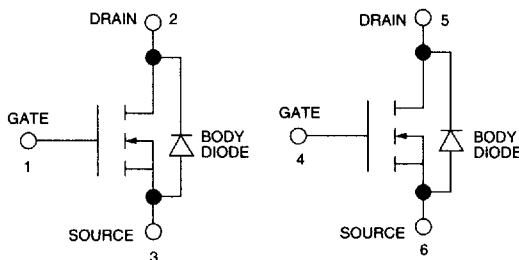
This series of high current, low $R_{DS(ON)}$ MOSFETs are ideally suited for low voltage applications; battery power, low voltage power supplies, motor controls, dc to dc converters and synchronous rectification. The low conduction loss allows smaller heat sinking and the low gate charge simplify drive circuitry.

MAXIMUM RATINGS (Per MOSFET)

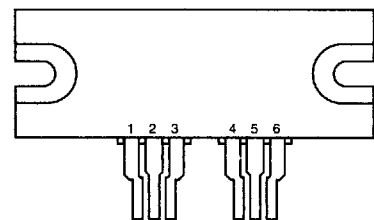
PART NUMBER	V_{DS}	$R_{DS(on)}$	I_D
OM6218SP1	60V	.018 Ω	20A

2.1

SCHEMATIC



PIN CONNECTION



Pin 1: Gate
Pin 2: Drain
Pin 3: Source
Pin 4: Gate
Pin 5: Drain
Pin 6: Source

ELECTRICAL CHARACTERISTICS: OM6218SP1

Parameter	Per MOSFET	Min.	Typ.	Max.	Units	Test Conditions
BV _{DS}	Drain-Source Breakdown Voltage	60			V	V _{GS} = 0, I _D = 250 μA
V _{GS(th)}	Gate-Threshold Voltage	2.0		4.0	V	V _{DS} = V _{GS} , I _D = 1mA
I _{GSS}	Gate-Body Leakage			±500	nA	V _{GS} = ±20 V
I _{OSS}	Zero Gate Voltage Drain Current			25	μA	V _{DS} = 48V, V _{GS} = 0
				250	μA	V _{DS} = 48V, V _{GS} = 0, T _C = 125° C
I _{D(on)}	On-State Drain Current ¹	30			A	V _{DS} ≥ 10 V, V _{GS} = 10 V
R _{DS(on)}	Static Drain-Source On-State Resistance ¹		.013	.018	Ω	V _{GS} = 10 V, I _D = 30 A
R _{DS(on)}	Static Drain-Source On-State Resistance ¹		.023	.030	Ω	V _{GS} = 10 V, I _D = 30 A, T _C = 125°C

DYNAMIC

g _{fs}	Forward Transconductance ¹	15	45		S	V _{DS} ≥ 15 V, I _D = 30 A
C _{iss}	Input Capacitance		2600		pF	V _{GS} = 0
C _{oss}	Output Capacitance		800		pF	V _{DS} = 25 V
C _{rss}	Reverse Transfer Capacitance		200		pF	f = 1 MHz
T _{d(on)}	Turn-On Delay Time		20	35	ns	V _{DD} = 30 V, I _D = 30 A R _g = 2.5 Ω, R _L = 1 Ω (MOSFET) switching times are essentially independent of operating temperature.
t _r	Rise Time		30	40	ns	
T _{d(off)}	Turn-Off Delay Time		60	75	ns	
t _f	Fall Time		20	35	ns	

BODY-DRAIN DIODE RATINGS AND CHARACTERISTICS

I _S	Continuous Source Current (Body Diode)			60	A	Modified MOSPOWER symbol showing the integral P-N Junction rectifier.
I _{SM}	Source Current ¹ (Body Diode)			240	A	
V _{SD}	Diode Forward Voltage ¹			2.0	V	T _C = 25°C, I _S = 20 A, V _{GS} = 0
t _{rr}	Reverse Recovery Time		160		ns	T _J = 150°C, I _r = I _S , dI _F /dS = 100 A/μs

¹ Pulse Test: Pulse Width ≤ 300μsec, Duty Cycle ≤ 2%.

MECHANICAL OUTLINE

